

APICAL  
INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

02196

SHEET 1 OF 2

DWG NO. 646.3300

REV: N/C

PREPARED BY

S. HUFF

DATE: 01/05/09

EFFECT ON DWG  
☐ INC. ☒ UNINC.

DWG TITLE:

UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

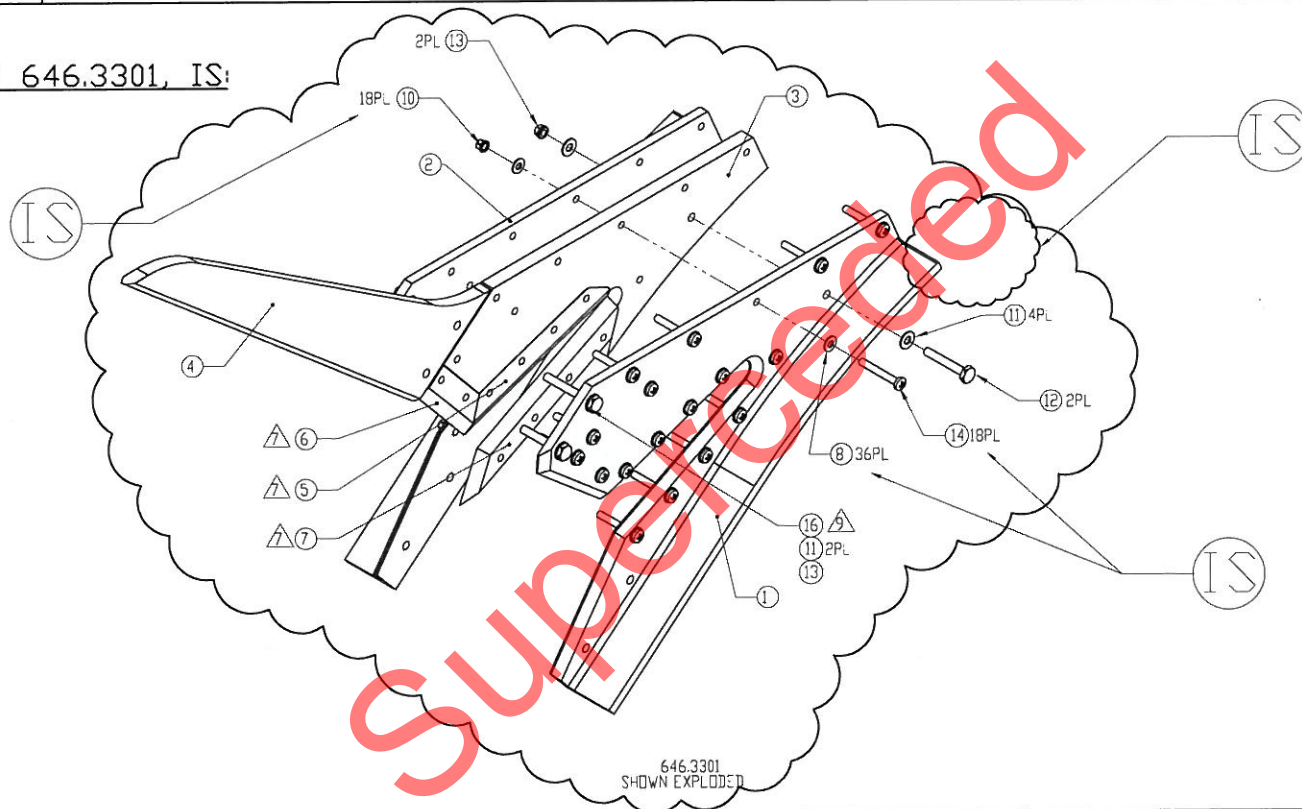
EFF:

NEXT ORDER

TRANSACTION CODES (TC):  
A-ADD C-CREATE  
R-REVISE D-DELETE

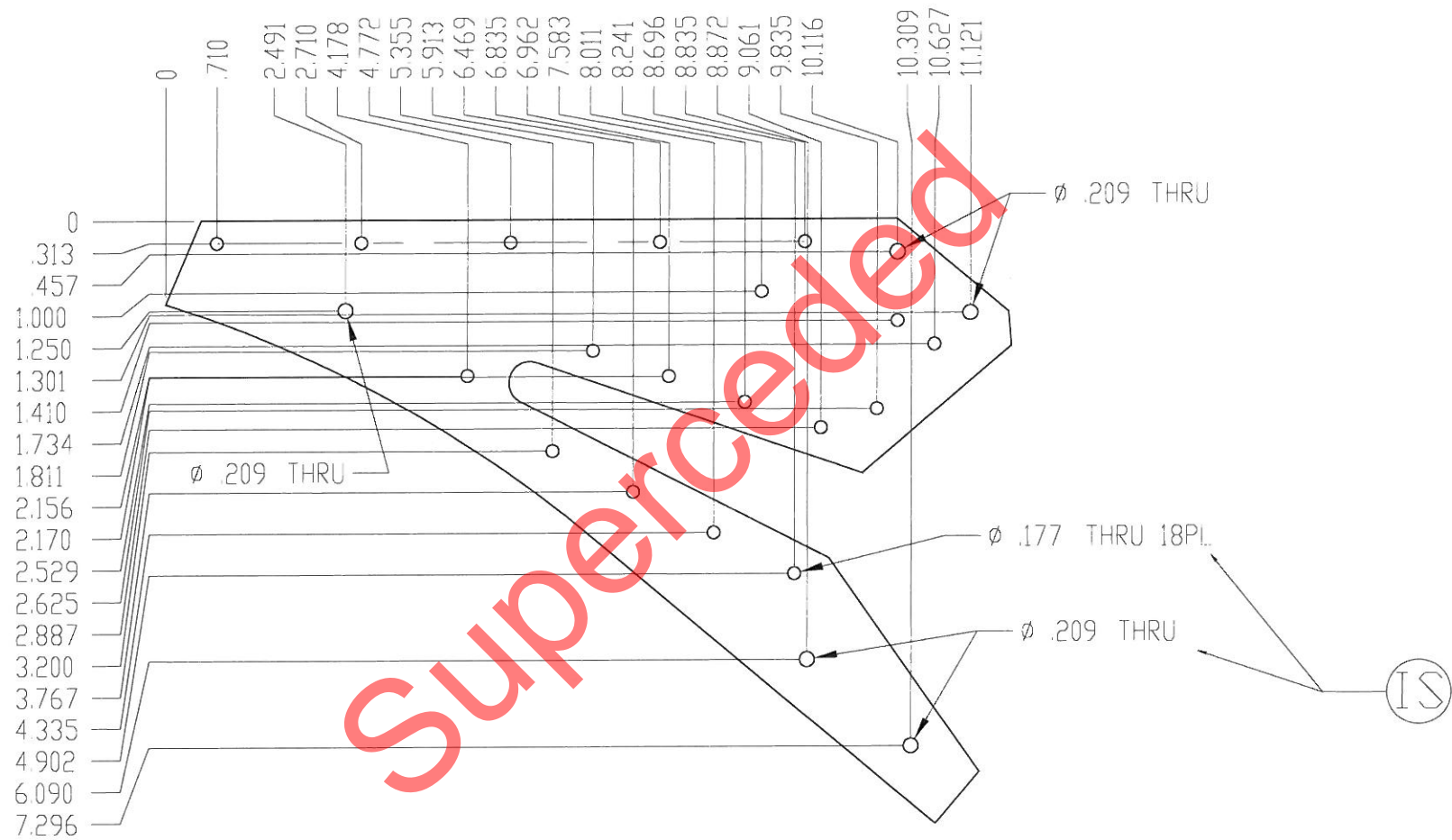
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			3301		
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
<input type="checkbox"/> MDL <input checked="" type="checkbox"/> INSTALL INSTRUC <input checked="" type="checkbox"/> ICA <input type="checkbox"/> FMS <input checked="" type="checkbox"/> BOM				<input type="checkbox"/> MAJOR <input checked="" type="checkbox"/> MINOR	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

## SHEET 3, SECTION VIEW A-A, IS:



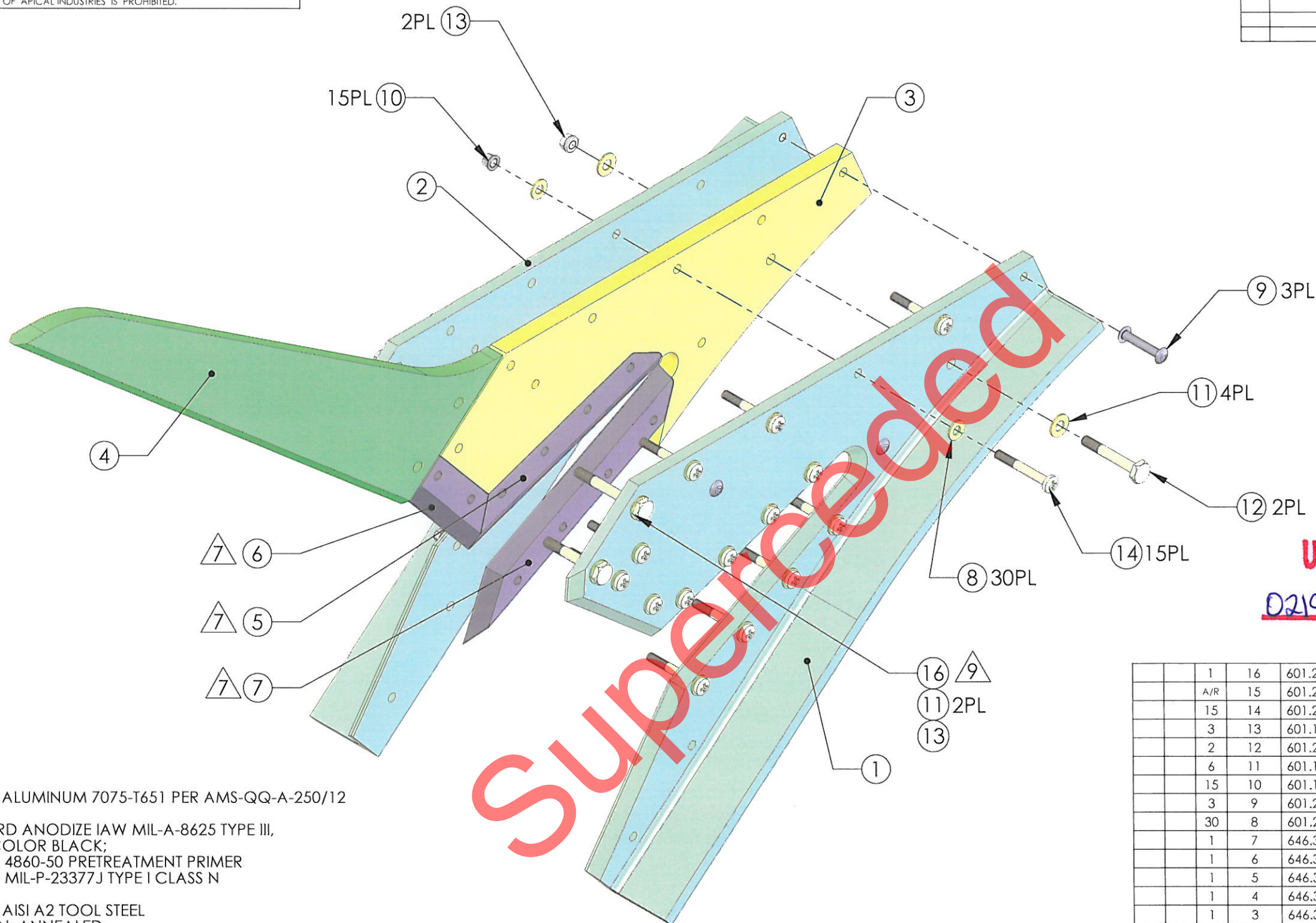
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
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1 2 3 4 5 6 7 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(s)

02196,

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL  
CONDITION: ANNEALED  
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301  
SHOWN EXPLODED

	1	16	601.2834	BOLT	AN3-14A	
	A/R	15	601.2045	RTV, LOCTITE 598		
	15	14	601.2765	SCREW	MS27039-0819	
	3	13	601.1624	LOCKNUT	MS21042L3	
	2	12	601.2763	BOLT	AN3-12A	
	6	11	601.1607	WASHER	NAS1149F0332P	
	15	10	601.1541	LOCKNUT	MS21042L08	
	3	9	601.2766	RIVET	MS20470AD5-18	
	30	8	601.2764	WASHER	NAS1149FN832P	
	1	7	646.3316	BLADE	3	4
	1	6	646.3315	BLADE	3	4
	1	5	646.3314	BLADE	3	4
	1	4	646.3313	UPPER GUIDE	1	2
	1	3	646.3312	CENTER PLATE	1	2
	1	2	646.3311	RH HALF	1	2
	1	1	646.3310	LH HALF	1	2
			646.3301	UPPER CUTTER ASSY		
	3301	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

QTY		PARTS LIST	
NEXT ASSY (S)		ORIGINAL DATE (MO-DA-YR) 08-26-08	
646.4000		DRAWN BY S. HUFF CHECKER P. BRAVO	
		DRAWING APPROVAL P. BRAVO 08-26-08	
		CONTRACT No.	
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	
		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
		UPPER CUTTER ASSY	
SIZE B	CAGE CODE 07M26	DWG. NO. 646.3300	REV. N/C
SCALE NONE		SHEET 1 OF 8	

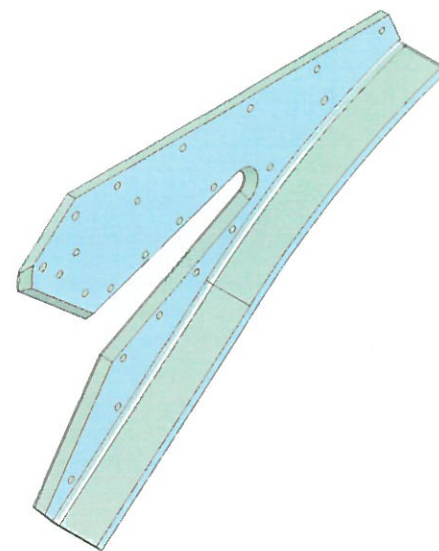
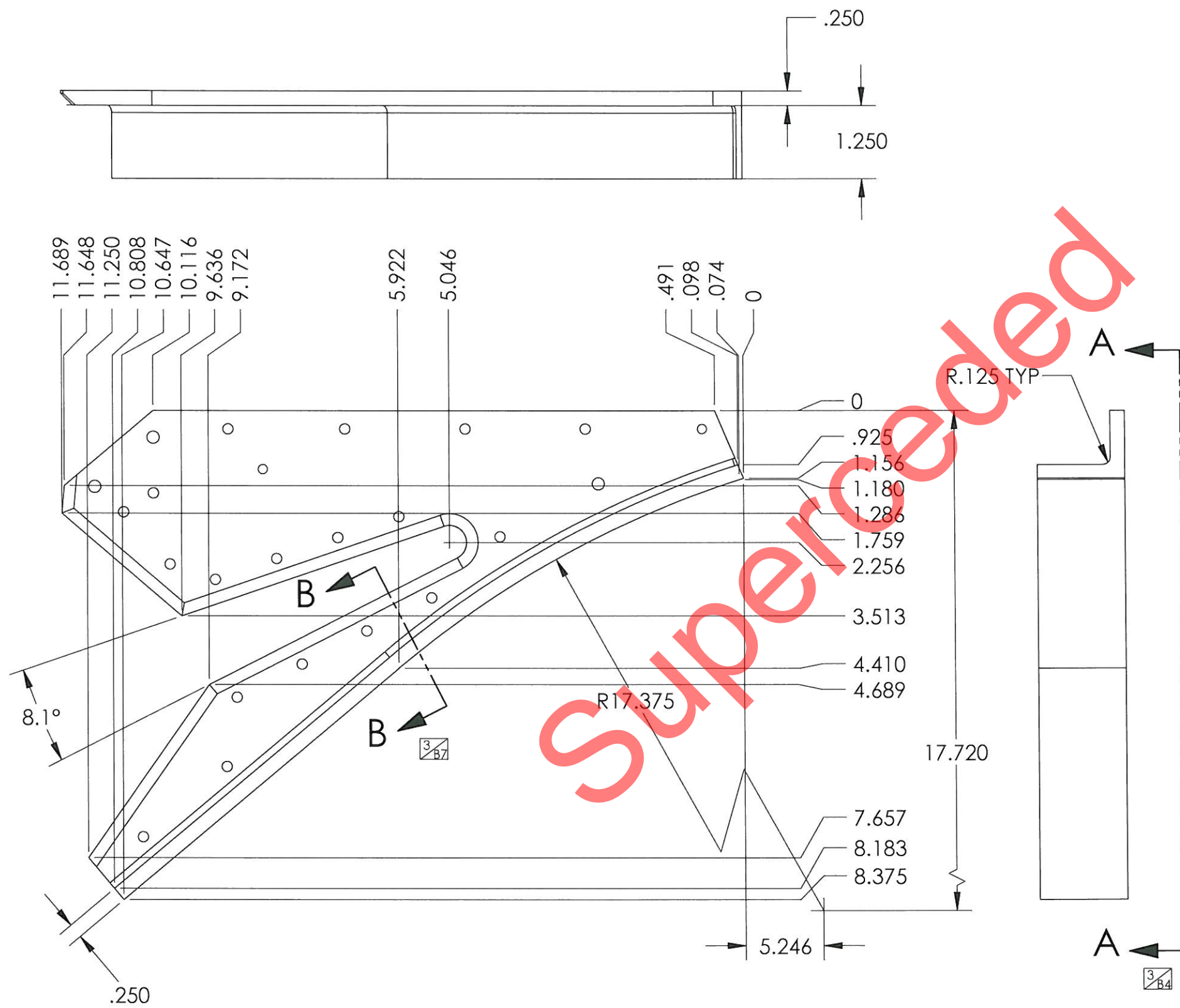
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A

B

C

D

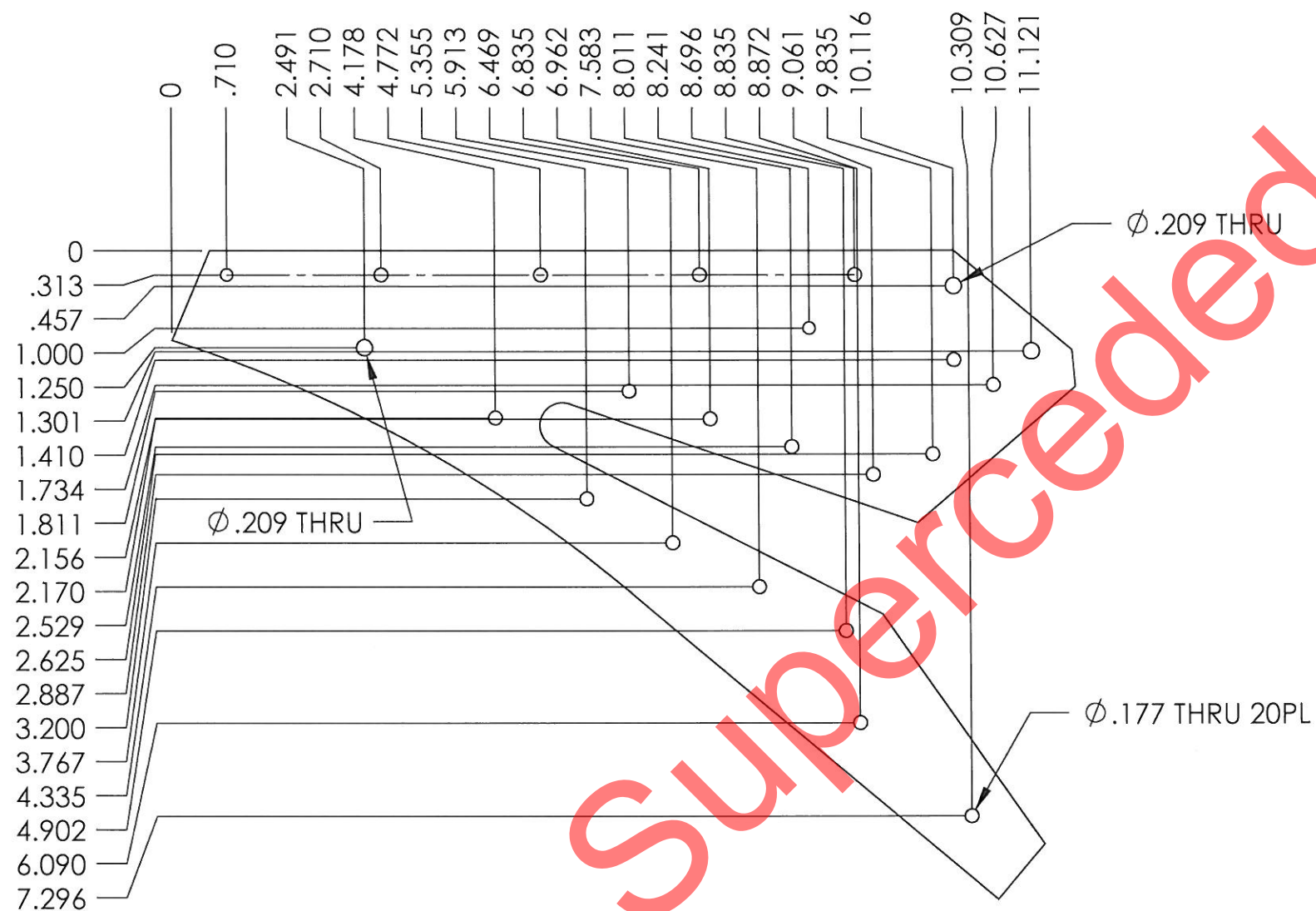


646.3310 SHOWN  
646.3311 OPPOSITE

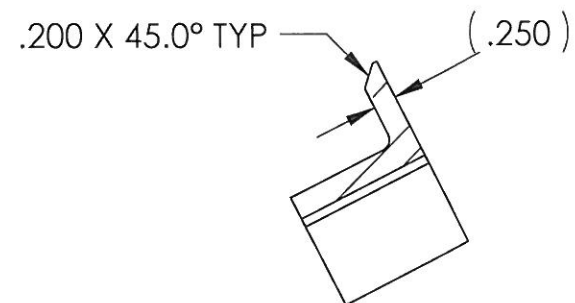
ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES	
DRAWN BY S. HUFF	CHECKER P. BRAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO		UPPER CUTTER ASSY	
CONTRACT No.		SIZE B	REV. N/C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		CAGE CODE 07MZ6	DWG. NO. 646.3300
		SCALE: NONE	SHEET 2 OF 8



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SECTION A-A  $\frac{2}{C6}$



SECTION B-B  $\frac{2}{C2}$

ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWN BY S. HUFF	CHECKER P. BRAVO		
DRAWING APPROVAL		UPPER CUTTER ASSY	
CONTRACT No.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B	REV N/C
		CAGE CODE 07MZ6	DWG. NO. 646.3300
		SCALE NONE	SHEET 3 OF 8

1 2 3 4 5 6 7 8

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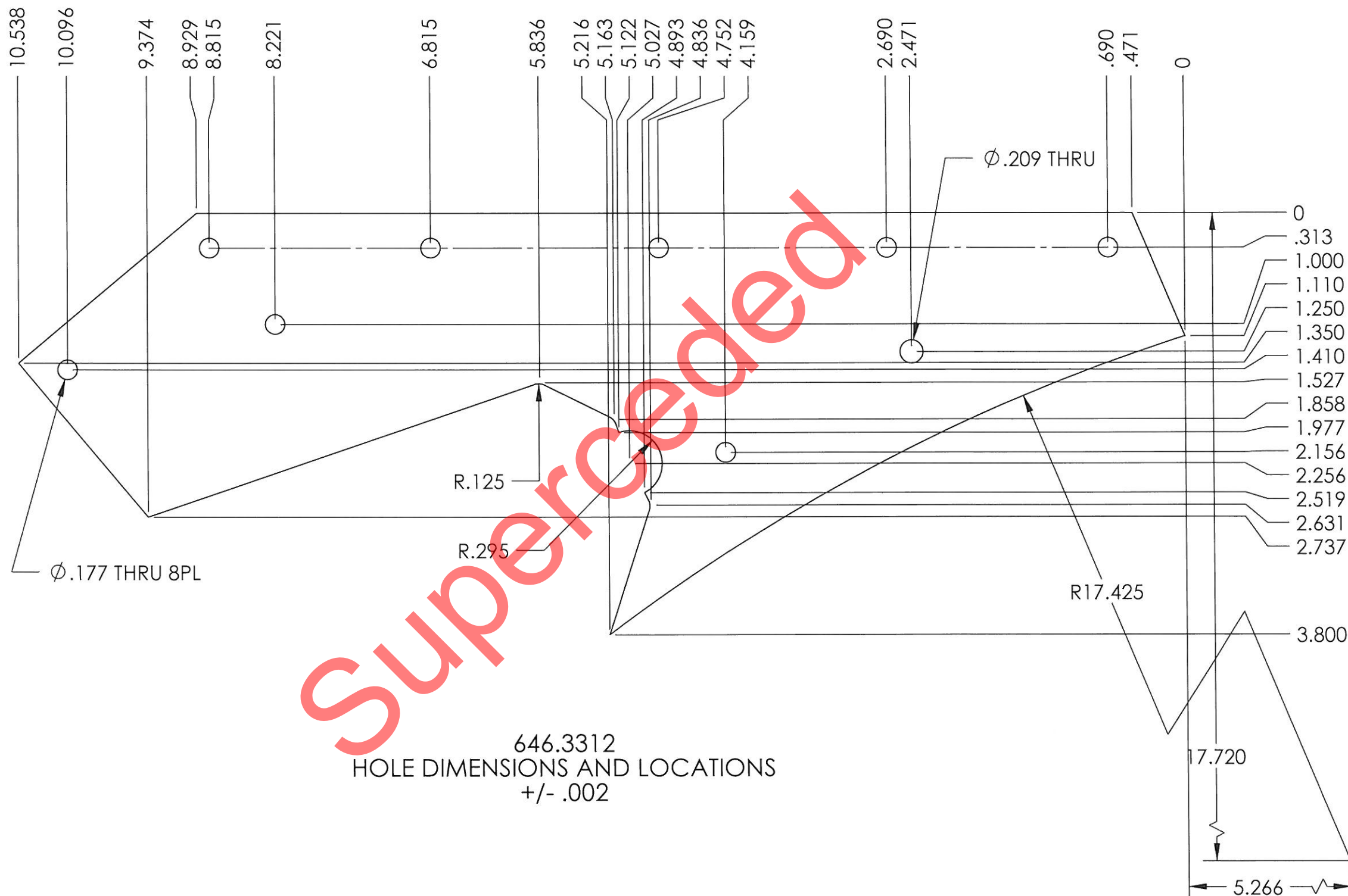
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

A

B

C

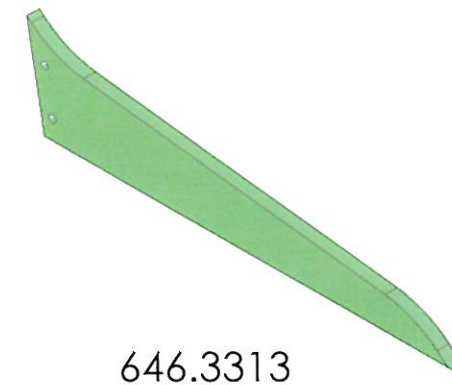
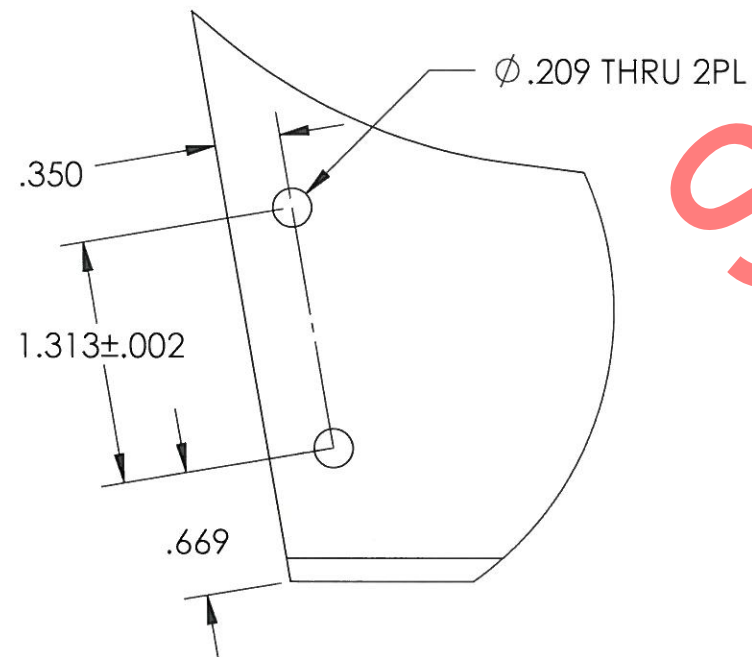
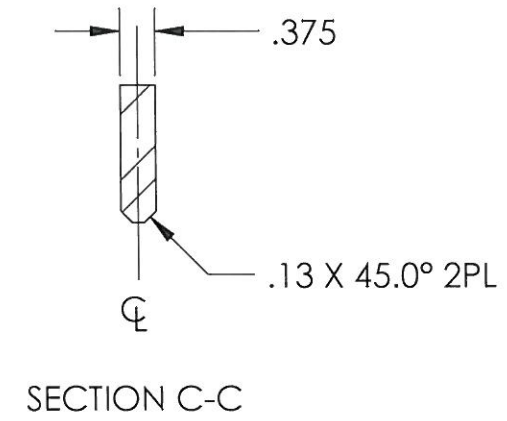
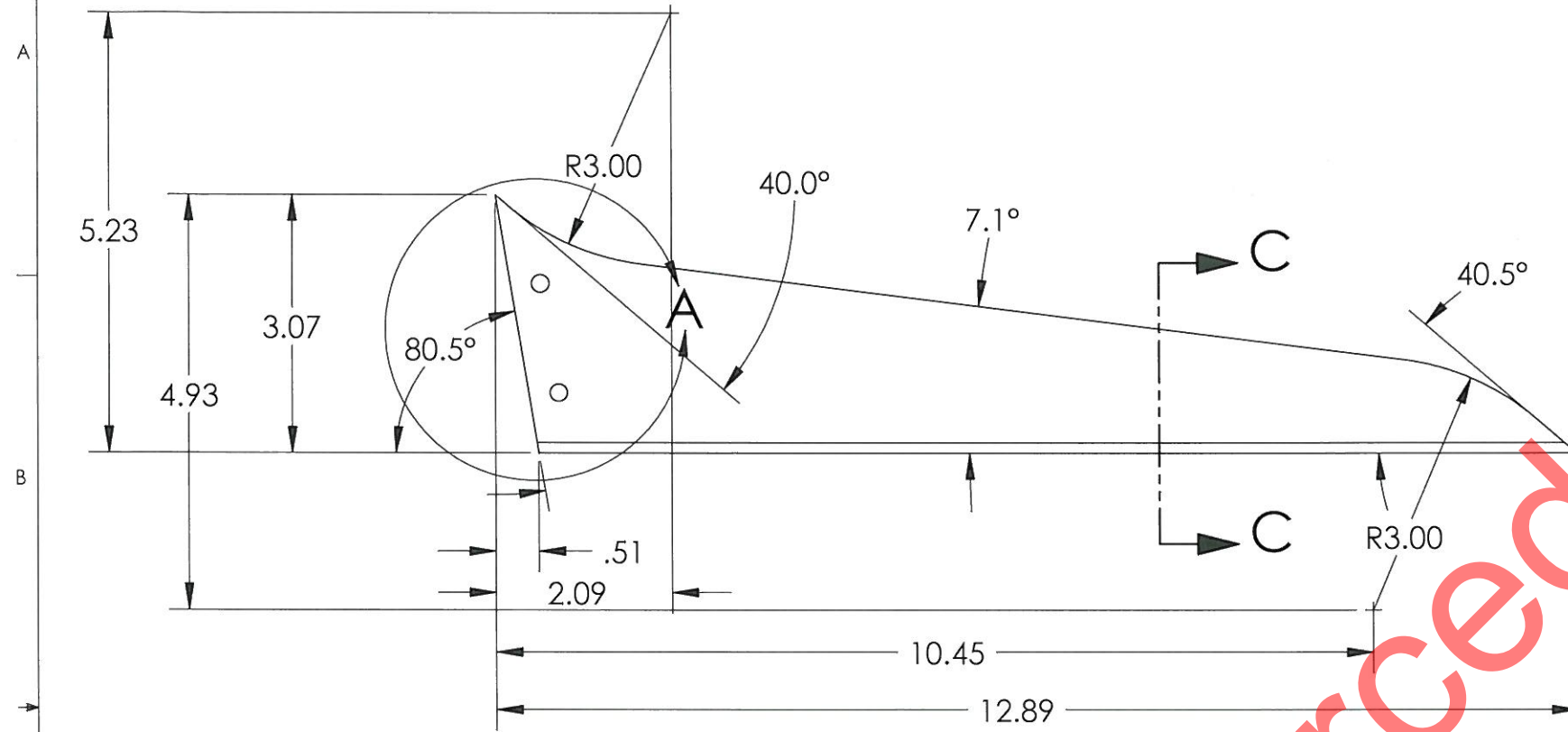
D



ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES	
DRAWN BY S. HUFF	CHECKER P. BRAVO	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL P. BRAVO 08-26-08		UPPER CUTTER ASSY	
CONTRACT NO.		SIZE B	REV. N/C
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		CAGE CODE 07M26	DWG. NO. 646.3300
		SCALE NONE	SHEET 4 OF 8

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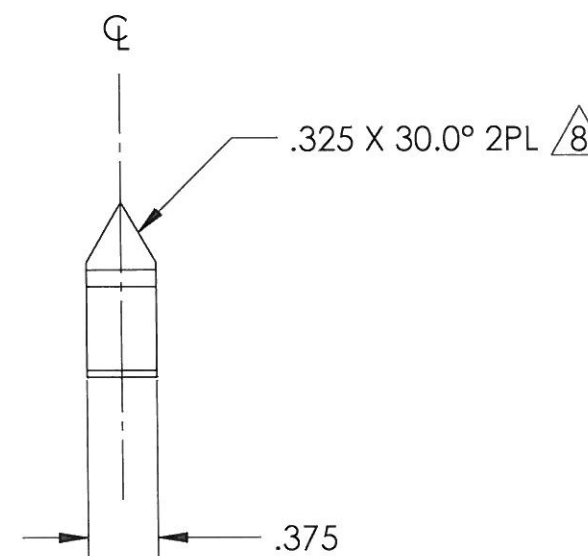
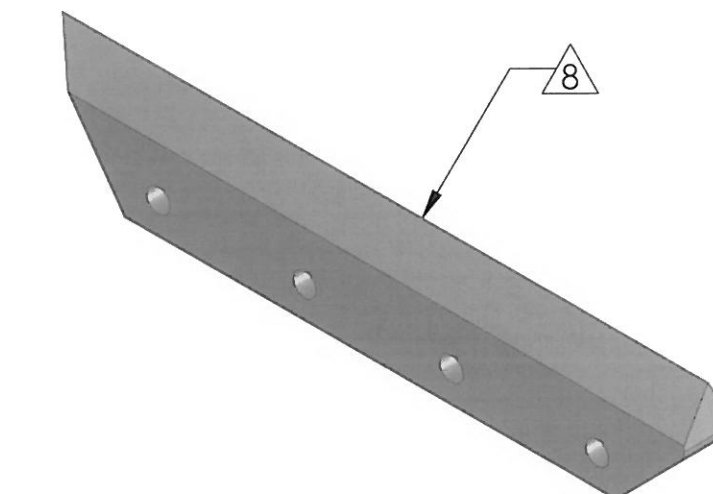
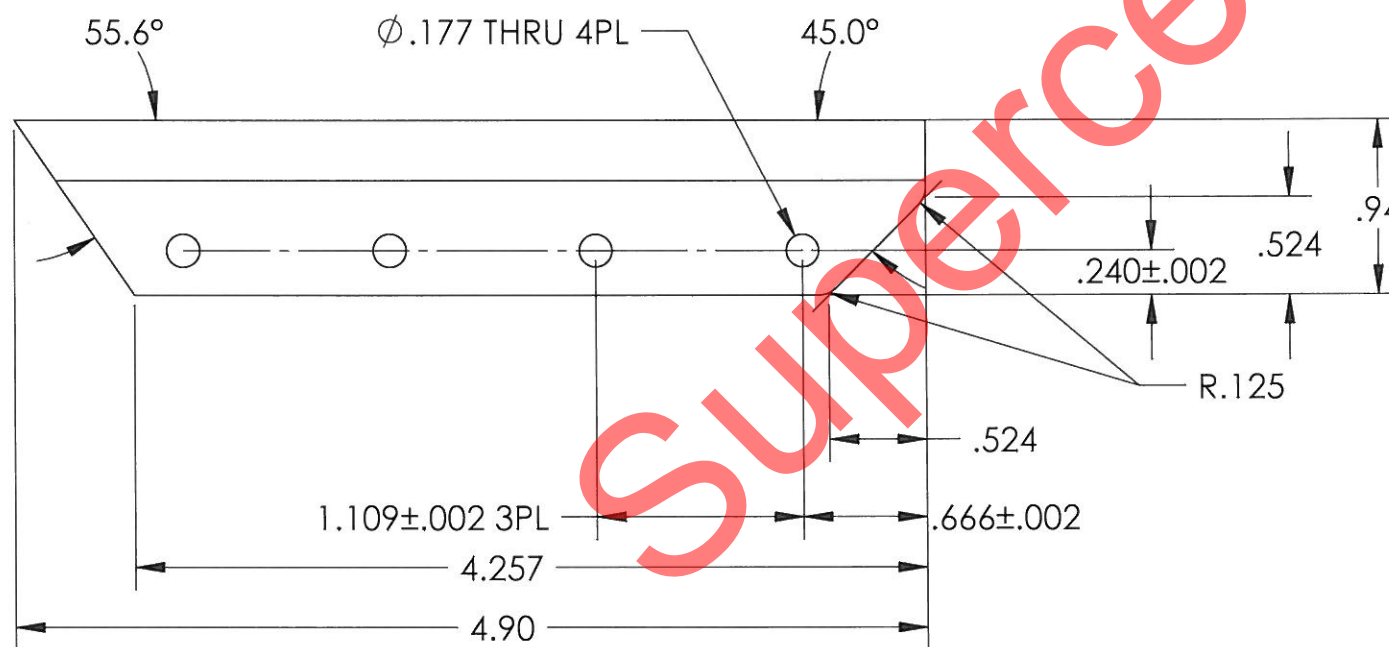
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
DRAWN BY S. HUFF	CHECKER P. BRAVO				
DRAWING APPROVAL P. BRAVO 08-26-08		UPPER CUTTER ASSY			
CONTRACT No.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE	CAGE CODE	DWG. NO.	REV.
		B	07MZ6	646.3300	N/C
		SCALE NONE		SHEET	5 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

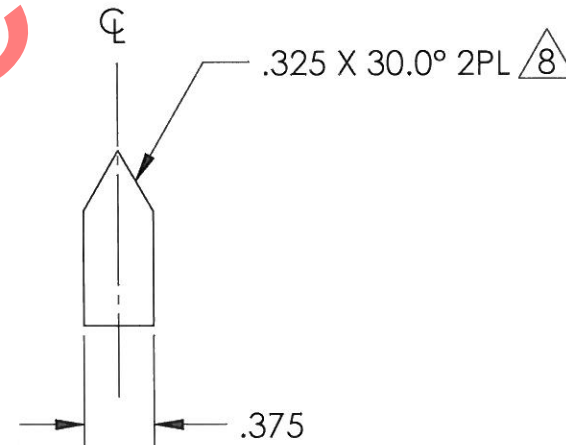
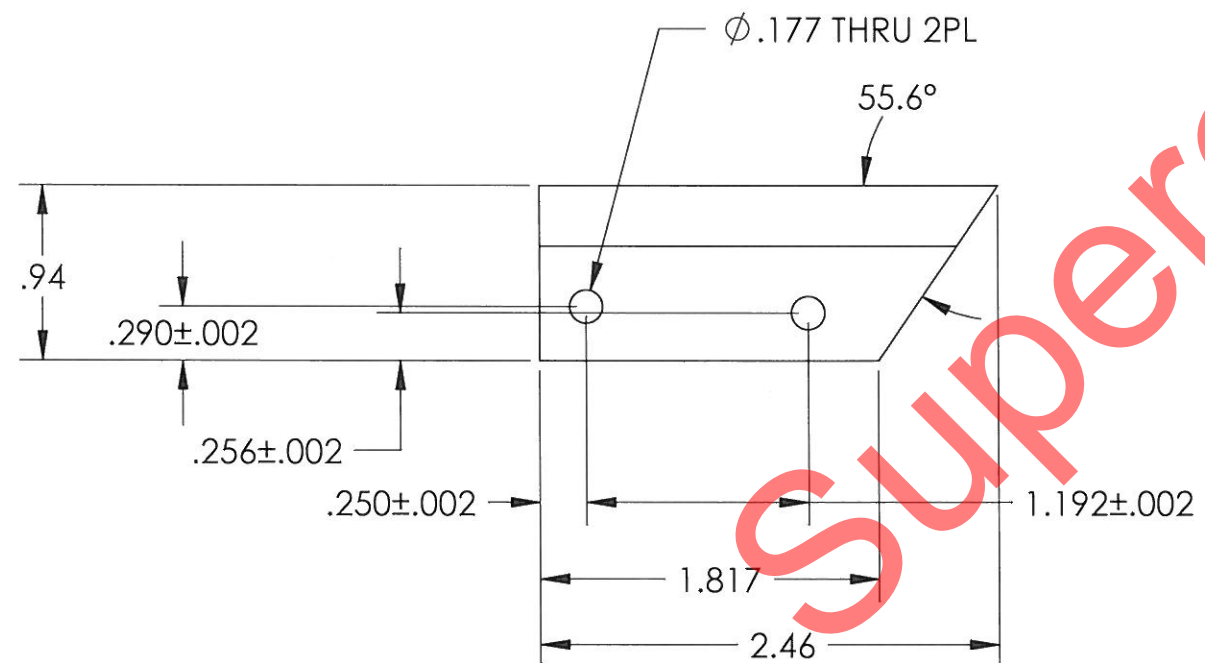
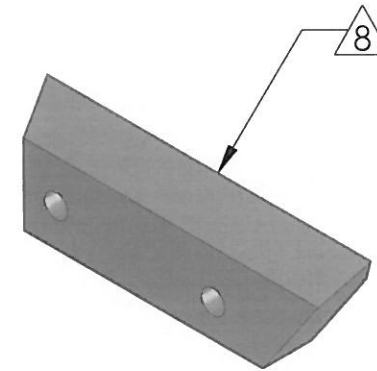


646.3314

ORIGINAL DATE (MO-DA-YR) 08-26-08		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
DRAWN BY S. HUFF	CHECKER P. BRAVO				
DRAWING APPROVAL P. BRAVO 08-26-08					
CONTRACT No.		UPPER CUTTER ASSY			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°					
SIZE B	CAGE CODE 07MZ6	DWG. NO. 646.3300	REV. N/C		
SCALE NONE			SHEET 6 OF 8		



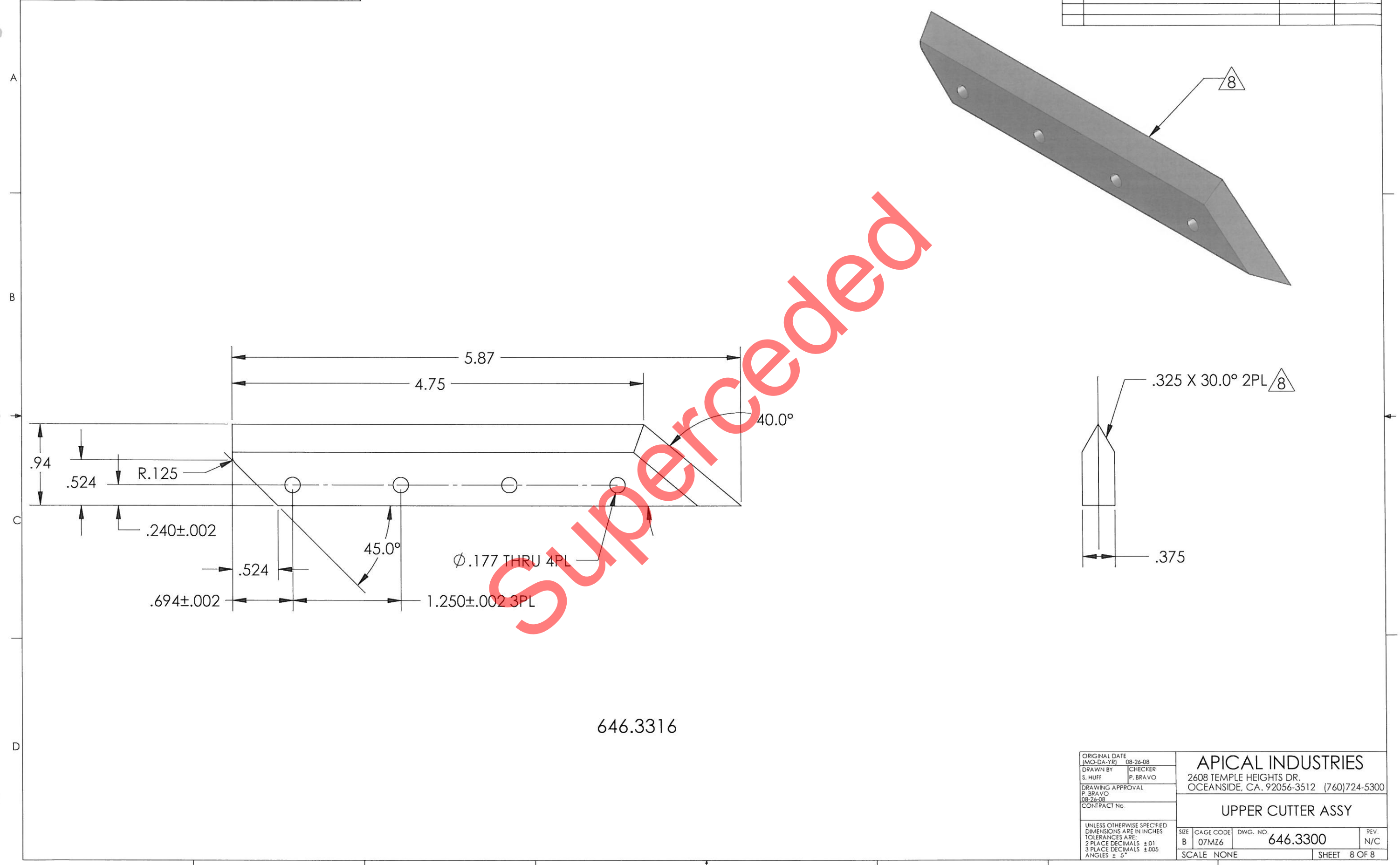
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



646.3315

ORIGINAL DATE (MO-DA-YR) 08-26-08	<h1>APICAL INDUSTRIES</h1> <p>2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300</p>			
DRAWN BY S. HUFF				CHECKER P. BRAVO
DRAWING APPROVAL P. BRAVO 08-26-08	<h2>UPPER CUTTER ASSY</h2>			
CONTRACT No.				
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	SIZE B	CAGE CODE 07MZ6	DWG. NO. 646.3300	REV. N/C
	SCALE NONE		SHEET	7 OF 8

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



646.3316

ORIGINAL DATE (MO-DA-YR)	08-26-08	<h1>APICAL INDUSTRIES</h1> <p>2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300</p>			
DRAWN BY S. HUFF	CHECKER P. BRAYO				
DRAWING APPROVAL P. BRAYO		<h2>UPPER CUTTER ASSY</h2>			
08-26-08					
CONTRACT No.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE B	CAGE CODE 07MZ6	DWG. NO. 646.3300	REV. N/C
SCALE NONE			SHEET 8 OF 8		